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EXAMINER
SOTOMAYOR, JOHN

ART UNIT	PAPER NUMBER
3714	14

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/917,776	MCCONNELL ET AL.
	Examiner	Art Unit
	John L Sotomayor	3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/10/2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) *32-35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *7,11* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-31, in Paper No. 13 is acknowledged. The requirement is deemed proper and is therefore made FINAL, and claims 32-35 are withdrawn from consideration.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 19-21,24, and 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Ford et al (US 5,484,293).

4. Regarding claim 19, Ford et al discloses a mobile experiment station comprising a portable cart having one or more wheels (Fig 1), one or more shelves storing a plurality of portable computers (Fig 5), and a server in the portable cart that is communicatively coupled to the plurality of portable computers (Col 3, lines 55-61).

5. Regarding claims 20, Ford et al discloses a server that is communicatively coupled to a server located on a shelf of a second portable cart (Col 7, lines 49-59).

6. Regarding claim 21, Ford et al discloses a computer communicatively coupled to a computer on a second cart through a server located in a second portable cart (Col 7, lines 49-59).

7. Regarding claim 24, Ford et al discloses a system in which a second computer may roam through the communication coverage area of a first cart and a second cart (Col 8, lines 23-34).

8. Regarding claim 29, Ford et al discloses a system comprising a portable case having a lid and configured to store a plurality of portable computers (Fig 3), a plurality of wheels located at a first end of the case and one or more handles located at a second end of the case (Fig 3) and a network server located within the case, that communicates with one or more computers (Col 7, lines 49-59 and Col 8, lines 23-34).

9. Regarding claim 30, Ford et al discloses a system wherein the network server communicates with a plurality of portable computers stored in the portable case (Col 7, lines 49-59).

10. Regarding claim 31, Ford et al discloses a system with a power supply within the case configured to supply power to the plurality of computers stored within the case (Col 7, lines 60-67).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 1,3-12,16-17, 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford et al (US 5,484,293) in view of Hoerner et al (US 5,751,134).

14. Regarding claims 1 and 25, Ford et al discloses a mobile experiment station comprising a portable cart having one or more wheels (Fig 1), one or more shelves storing a plurality of portable computers (Fig 5), a power supply in the portable cart (Fig 4) and a server in the portable cart that is communicatively coupled to the plurality of portable computers (Col 3, lines 55-61). Ford et al does not specifically disclose a battery storage area containing batteries rechargeable from the power supply. However, Hoerner et al teaches a system that contains a portable computer with a rechargeable battery that may be recharged from the system power supply (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the plurality of computer systems within the portable cart with rechargeable batteries that may be recharged from the system power supply. Combining the system disclosed by Ford et al with the teaching of Hoerner et al produces a system that may continue to operate during power outages and in areas that are remote from a line power supply.

15. Regarding claim 3, Ford et al does not specifically disclose a battery changing station that allows the portable computers to operate from the power supply while a battery is changed. However, Hoerner et al teaches a system that contains a portable computer that may operate from the system power supply while a battery is changed (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the plurality of

computer systems within the portable cart with the capability to operate from the system power supply during a battery changeover. Combining the system disclosed by Ford et al with the teaching of Hoerner et al produces a system that may operate continuously during battery changeout to avoid ruining long running experiments.

16. Regarding claim 4, Ford et al discloses that the server is communicatively coupled to a communications network external to the cart (Col 5, lines 35-39).

17. Regarding claims 5-6, Ford et al discloses that the communications network external to the cart is a local area network (claim 5) and that the external network is a telephone system (claim 6) (Col 7, lines 49-59).

18. Regarding claims 7 and 26, Ford et al discloses a plurality of drawers in the portable cart (Fig 1). Ford et al does not specifically disclose that one of the drawers is a battery storage area. However, Hoerner et al teaches that a separate battery in a housing that serves as a shelf for the portable computer may be used to recharge a portable computer battery during operation of the system (Col 3, lines 32-59, Fig 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a drawer as a battery storage area. Combining the system disclosed by Ford et al with the teaching of Hoerner et al produces a system with convenient power supply storage for use when changout is required in the midst of experimentation.

19. Regarding claim 8, Ford et al discloses that the server communicates with the portable computers while said computers are stored within the cart (Col 7, lines 49-59).

20. Regarding claim 9, Ford et al discloses that the server updates software stored within said computers while the computers are stored within the cart (Col 8, lines 35-43).

21. Regarding claims 10 and 28, Ford et al does not specifically disclose that recharges batteries that are connected to computers within the cart. However, Hoerner et al teaches a system that contains a portable computer with a rechargeable battery that may be recharged from the system power supply while connected to the computer (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a portable cart that recharges batteries that are connected to computers within the cart. Combining the system disclosed by Ford et al with the teaching of Hoerner et al produces a system that may continue to operate during power outages.

22. Regarding claim 11, Ford et al discloses a plurality of panels enclosing the contents of the cart wherein one of the panels is a door (Fig 1).

23. Regarding claim 12, Ford et al discloses one or more external folding shelves (Fig 2).

24. Regarding claim 16, Ford et al discloses a system in which computer-readable media store instructions available to administer an examination to students (Col 10, lines 39-54).

25. Regarding claim 17, Ford et al does not specifically disclose that the portable computers in the cart have an enlongated battery across the front of the computer system. However, Hoerner et al teaches that a portable computer system may be configured with an enlongated battery across the front of the machine (Fig 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a portable computer in the cart having an enlongated battery across the front of the computer system. Combining the system disclosed by Ford et al with the teaching of Hoerner et al produces a system with greater ease of use for the replacement of the battery.

26. Regarding claim 27, Ford et al discloses a current limiting power supply for power to the devices within the cart (Col 7, lines 60-67). Ford et al does not specifically disclose that this power supply provides electrical power to one or more rechargeable batteries. However, Hoerner et al teaches a system that contains a portable computer with a rechargeable battery that may be recharged from the system power supply while connected to the computer (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a portable cart that recharges batteries that are connected to computers within the cart. Combining the system disclosed by Ford et al with the teaching of Hoerner et al produces a system that may continue to operate during power outages.

27. Claims 2, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford et al in view of Hoerner et al in further view of Stevens, III (US 5,769,643).

28. Regarding claims 2 and 18, Ford et al does not specifically disclose, nor Hoerner et al teach, that the server communicates with portable computers via wireless communications(claim 2) or that the system includes a built in radio frequency antenna (claim 18). However, Stevens, III teaches an instruction communication network that communicates between a portable computing device and a server through wireless communications (claim 2) (Abstract) using a built-in radio frequency antenna (claim 18) (Fig 1). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to provide a wireless capability for communication between the server and the portable computers within the cart. Combining the system disclosed by Ford et al with the teachings of Hoerner et al and Stevens, III produces a system with more flexibility for the setup of experiments and instruction of students.

29. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford et al in view of Hoerner et al in further view of Prewitt (US 6,421,525).

30. Regarding claim 13, Ford et al does not disclose nor does Hoerner et al teach that the student computers are communicatively coupled to a teacher computer. However, Prewitt teaches a mobile educational system in which a teacher computer is communicatively coupled to a plurality of student computers (Col 2, lines 14-20). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to provide student computers that are communicatively coupled to a teacher computer. Combining the system disclosed by Ford et al with the teaching of Prewitt produces a mobile learning system for student field trips.

31. Regarding claim 14, Ford et al does not disclose nor does Hoerner et al teach that the teacher computer monitors the student computers. However, Prewitt teaches a mobile educational system in which a teacher computer monitors the student computers (Col 1, lines 48-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a teacher computer that monitors the student computers. Combining the system disclosed by Ford et al with the teaching of Prewitt produces a mobile learning system for student field trips in which the teacher may assess how meaningful the excursion has been for the students.

32. Regarding claim 15, Ford et al does not disclose nor does Hoerner et al teach that the teacher computer may assume control over one or more of the student computers. However, Prewitt teaches a mobile educational system in which the play and audio systems are controlled by a computer and the program content is easily changed to provide an endless variety of lessons (Col 1, lines 60-67). Therefore, it would have been obvious to one of ordinary skill in the art at

the time of invention to provide a teacher computer that may assume control over one or more of the student computers. Combining the system disclosed by Ford et al with the teaching of Prewitt produces a mobile learning system in which a teacher may direct the educational content displayed on the monitors of each of the student computers to enhance the field trip experience.

33. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford et al in view of Prewitt.

34. Regarding claim 22, Ford et al does not disclose that a first computer is a teacher computer and a second computer is a student computer. However, Prewitt teaches that a computer system used by a teacher is operatively connected to a plurality of student computers (Col 1, lines 25-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a first computer that is a teacher computer and a second computer that is a student computer. Combining the system disclosed by Ford et al with the teaching of Prewitt produces a mobile learning system in which a teacher may select and present lessons to a plurality of students simultaneously.

35. Regarding claim 23, Ford et al does not disclose a teacher computer that monitors a student computer. However, Prewitt teaches a mobile educational system in which a teacher computer monitors the student computers (Col 1, lines 48-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a teacher computer that monitors the student computers. Combining the system disclosed by Ford et al with the teaching of Prewitt produces a mobile learning system for student field trips in which the teacher may assess the lessons that the students are working on and provide meaningful updates.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Sotomayor whose telephone number is 703-305-4558. The examiner can normally be reached on 6:30-4:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on 703-308-1806. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-8361 for regular communications and 703-746-8361 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4558.

jls
May 16, 2003

Joe H. Cheng
Primary Examiner